

ZHOUCE NF-468CS

ZHOUCE NF-468CS Network Cable Tester User Manual

Model: NF-468CS

1. INTRODUCTION

The ZHOUCE NF-468CS is a versatile network cable tester designed for comprehensive testing of various network and telephone cables. It provides accurate diagnostics for cable faults such as open circuits, short circuits, cross-pairs, and split pairs. This device supports RJ45, RJ11, CAT5, CAT5E, CAT6, CAT6A, CAT7, and CAT3 cable types, including UTP/STP. Additionally, it features Power over Ethernet (PoE) testing capabilities and a Quality Control (QC) function for crimp integrity.

This manual provides detailed instructions for the proper setup, operation, maintenance, and troubleshooting of your NF-468CS Network Cable Tester to ensure optimal performance and longevity.

2. SAFETY INFORMATION

- Do not expose the device to moisture or extreme temperatures.
- Avoid dropping the device or subjecting it to strong impacts.
- Do not attempt to disassemble or modify the device. Repairs should only be performed by qualified personnel.
- Ensure cables are properly connected before performing tests to prevent damage to the tester or connected equipment.
- The device supports PoE testing up to 60V. Do not connect to power sources exceeding this voltage.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- NF-468CS Master Unit
- NF-468CS Remote Unit
- USB-C Charging Cable
- User Manual (this document)

4. PRODUCT OVERVIEW

The NF-468CS consists of two main components: the Master Unit and the Remote Unit. Both units feature RJ45 and RJ11 ports, LED indicators for test results, and a power switch.



Figure 4.1: ZHOUC N-468CS Master and Remote Units connected via an Ethernet cable.

Master Unit: The primary unit with controls for power, test modes (QC/OFF/TEST), and LED indicators (1-8, G) for both QC and TEST functions. It also includes a USB-C charging port.

Remote Unit: A detachable unit used for testing longer cables or installed cables. It mirrors the LED indicators (1-8, G) of the Master Unit.

LED Indicators:

- **1-8:** Indicate the status of individual wire pairs.
- **G:** Indicates ground/shield continuity (for STP cables).
- **Power LED:** Indicates power status and low battery.

5. SETUP

5.1 Charging the Device

The NF-468CS features a built-in rechargeable lithium battery. Before first use, or when the Power LED indicates low battery, charge the device using the provided USB-C cable.

1. Locate the USB-C charging port on the Master Unit.
2. Connect the USB-C cable to the Master Unit and a suitable USB power adapter (not included).
3. The Power LED will indicate charging status. Charge until fully charged.



Figure 5.1: USB-C charging port on the Master Unit.

5.2 Connecting the Remote Unit

For testing installed cables or cables longer than the direct connection allows, detach the Remote Unit from the Master Unit. The Remote Unit slides off the Master Unit.

6. OPERATION

6.1 Basic Cable Continuity Test (RJ45/RJ11)

This test checks for open circuits, short circuits, cross-pairs, and split pairs in network (RJ45) and telephone (RJ11) cables.

1. Ensure the device is powered on by sliding the switch to the "TEST" position.
2. Connect one end of the cable to the RJ45 or RJ11 port on the Master Unit.
3. Connect the other end of the cable to the corresponding RJ45 or RJ11 port on the Remote Unit. If testing a short cable, the Remote Unit can remain attached to the Master Unit.
4. Observe the LED sequence on both the Master and Remote Units.

Interpreting Test Results:

- **Straight-Through Cable (Perfect Connection):** LEDs 1-8 and G (if shielded) on both units will light up sequentially and in the same order (1-1, 2-2, ..., 8-8, G-G).
- **Open Circuit:** If a wire is broken, the corresponding LED on the Remote Unit will not light up. For example, if wire 3 is open, LED 3 on the Remote Unit will be off.
- **Short Circuit:** If two or more wires are shorted, multiple LEDs will light up simultaneously or in an incorrect sequence.
- **Cross-Over Cable:** LEDs will light up sequentially but in a crossed pattern (e.g., 1-3, 2-6, 3-1, 6-2 for a standard cross-over).
- **Split Pair:** This fault is indicated when the wire pairs are correctly terminated but the internal wiring is swapped, leading to signal degradation. The tester will show an incorrect sequence for the affected pairs.
- **Shielded Cable (STP):** The 'G' LED will light up if the shield is properly connected.



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Figure 6.2: QC function showing results for well-crimped and poorly crimped RJ45 connectors.

6.3 POE Test

The NF-468CS can quickly determine the power supply type and state of a PoE switch or device, up to 60V.

1. Ensure the device is powered on.
2. Connect the cable from the PoE source (e.g., PoE switch) to the RJ45 port on the Master Unit.
3. Observe the PoE indicator LEDs (D1, D2, D3, D4) on the Master Unit.

Interpreting POE Test Results:

- **1-2 lights on or 3-6 lights on:** Indicates End-span (Mode A) power supply.
- **4-5 lights on or 7-8 lights on:** Indicates Mid-span (Mode B) power supply.
- The device also indicates battery power and low voltage warnings via the Power LED.

POE powered pair cable Power supply core line condition

1-2 lights on or 3-6 lights on = end jumper method
4-5 lights on or 7-8 lights on = middle jumper method

Anti-burning withstand voltage **60V**
POE test, router to line, not burn machine



Figure 6.3: PoE testing setup showing the tester connected to a PoE switch.

Caution: The NF-468CS is designed with anti-burning protection up to 60V. Do not exceed this voltage during PoE testing to prevent damage to the device.

Anti-burning withstand voltage **60V**

POE test, router to line, not burn machine



Figure 6.4: Illustration of the 60V anti-burning protection feature.

6.4 Single Line / 2-Wire Cable State Testing (DC Detecting)

This function allows for detecting DC voltage, determining anode and cathode, and signal detection on 2-wire phone lines (CAT3).

1. Connect the phone line to the RJ11 port on the Master Unit.
2. The device will indicate the presence of DC voltage and polarity.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures.
- **Battery Care:** For optimal battery life, avoid fully discharging the battery frequently. Charge the device regularly, especially if stored for extended periods.

8. TROUBLESHOOTING

- **Device does not power on:**
 - Check if the battery is charged. Connect the USB-C charger and try again.
 - Ensure the power switch is in the "TEST" or "QC" position.
- **LEDs do not light up during test:**
 - Verify that the cable is securely connected to both the Master and Remote Units.
 - Ensure the cable itself is not severely damaged.
 - Check battery level.
- **Inconsistent LED readings:**
 - Ensure the cable connectors (RJ45/RJ11) are properly crimped and seated.
 - Test with a known good cable to verify tester functionality.
- **PoE test not working:**
 - Confirm the connected device is a PoE source.
 - Ensure the voltage does not exceed 60V.

9. SPECIFICATIONS

Feature	Specification
Model Number	NF-468CS
Supported Cable Types	RJ45, RJ11, CAT5, CAT5E, CAT6, CAT6A, CAT7, CAT3 (UTP/STP)
Test Functions	Continuity (Open, Short, Cross, Split Pair), QC (Crimp Test), PoE Test, 2-Wire Line State (DC Detecting)
Max Test Distance	Up to 1000 meters (Ethernet Tester function)
PoE Test Voltage Range	Up to 60V (Anti-burning protection)
Power Source	Rechargeable Lithium Battery (USB-C charging)
Dimensions (Master Unit)	Approximately 7 x 3 x 2 inches
Weight	Approximately 6.38 ounces

10. WARRANTY AND SUPPORT

ZHOUCE products are manufactured to high-quality standards. For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official ZHOUCE website. Please retain your proof of purchase for warranty claims.

For further assistance, please contact ZHOUCE customer service.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question